

SUITABILITY GROUP A-1

(Loamy Bottomland)

Description: Deep, well drained or moderately well drained soils with loamy surfaces and loamy or clayey subsoils. Soils in this subgroup occur on floodplains and terraces which receive extra moisture from adjoining areas. (Soils with a clayey subsoil have at least 14 inches of loamy material above the subsoil.)

Limitations: Soils in this subgroup can have slight wetness and slight salinity or alkalinity.

Soils: Alluvial land
Eudora silt loam
Haynie silt loam
Ivan silt loam
Kahola silt loam
Kennebec silt loam
Mason silt loam
Muir silt loam
Nodaway silt loam
Reading silt loam, soils
Verdigris silt loam, soils

Recommended Species: See chart on next page.

SPECIES	SPECIES ADAPTABILITY 1 /		SPECIES PRODUCTIVITY 2 /	GRAZING PREFERENCE 3 /	STAND ESTABLISHMENT 4 /	FERTILIZER NEEDS 5 /			PH RANGE 6 /	DROUGHT TOLERANCE
	DRYLAND	IRRIGATED				N	P	K		
WARM SEASON GRASSES										
BERMUDAGRASS	6S	8S	9	5	2-3	1-3	0-2	1-2	5.5-8.0	FAIR
HARDIE	6S	8S	9	4	2-3	1-3	0-2	1-2	5.5-8.0	FAIR
MIDLAND	6S	8S	9	5	2-3	1-3	0-2	1-2	5.5-8.0	FAIR
BIG BLUESTEM	9	9	5	7	2-3	0-1	0	0	6.0-7.5	FAIR-GOOD
KAN	9	9	6	7	2-3					FAIR-GOOD
PANNEE	8N	8N	6	7	2-3					FAIR-GOOD
EASTERN GAMAGRASS	8	9	10	8	2-4	0-3	0-2	0-1	5.5-7.5	FAIR
INDIANGRASS	8	8	5	7	1-3	0-1	0	0	5.5-7.5	FAIR
CHEYENNE	7	7	6	7	1-3					FAIR
NEBRASKA 54	7N	7N	6	7	1-3					FAIR
OSAGE	8	8	6	7	1-3					FAIR
SWITCHGRASS	8	8	5	5	1-2	0-2	0	0	5.5-8.0	GOOD
BLACKWELL	8	8	6	5	1-2					GOOD
CAVE-IN-ROCK	7	7	7	5	1-2					GOOD
KANLOW	6	6	8	4	1-2					POOR
PATHFINDER	8N	8N	6	5	1-2					GOOD
TRAILBLAZER	8N	8N	6	6	1-2					GOOD
COOL SEASON GRASSES										
CREEPING FOXTAIL	3N	5N	6	7	1-2	1-2	1-2	0-2	5.5-7.0	POOR
GARRISON	3N	5N	7	7	1-2					POOR
ORCHARDGRASS	6	8	6	7	1-2	1-2	1-2	0-2	5.5-7.0	POOR
LATAR	6	8	7	7	1-2					POOR
REED CANARYGRASS	5	7	7	6	1-2	1-2	1-2	0-2	5.5-7.0	POOR
IDREED	5	7	8	6	1-2					POOR
RISE	4	6	8	6	1-2					POOR
SMOOTH BROMEGRASS	8	8	6	7	1	1-2	1-2	0-2	5.5-7.0	FAIR
ACHENBACH	8	8	7	7	1					FAIR
LINCOLN	7	7	7	7	1					FAIR
SOUTHLAND	8	8	7	7						FAIR
TALL FESCUE	8	8	6	4		1-2	1-2	0-2	6.2-7.0	POOR
KENNY	6	7	7	4	1					POOR
KENTUCKY-31	8	8	7	4	1					POOR
MISSOURI-96	7	8	7	4	1					POOR
WHEATGRASS										
TALL	7	7	5	4	1-2	1-2	1-2	0-1	7.0-8.5	FAIR
JOSE	7	7	6	4	1-2					FAIR
WESTERN	7	7	4	5	1-3	0-1	0-1	0-1	6.5-8.5	GOOD
BARTON	7	7	5	5	1-3					GOOD
LEGUMES										
ALFALFA (STANDARD)	8	9	10	8	1	0-1	1-3	1-3	6.5-8.0	GOOD
(RHIZOMATOUS)	7	8	7	8	1-2	0-1	1-3	1-2	6.5-8.0	GOOD

1_ / ADAPTABILITY - 0=NOT ADAPTED, 1-3=POOR, 4-6=FAIR, 7-9=GOOD; N=NORTH OF THE SMOKY HILL AND KANSAS RIVERS; S=ADAPTED IN SOUTHERN COUNTIES ONLY.

2_ / SPECIES PRODUCTIVITY - A POTENTIAL ANIMAL UNIT MONTH RATING FOR EACH CULTIVAR. THIS AUM FACTOR, FOR THE SPECIES, TIMES THE ADAPTABILITY FACTOR, DIVIDED BY 9, SHOULD GIVE A POTENTIAL AUM PRODUCTIVITY RATING OF THIS SPECIES OR CULTIVAR ON THIS GROUP.

3_ / GRAZING PREFERENCE - SCALE 1 - 8, (1=POOR, 8=EXCELLENT).

4_ / STAND ESTABLISHMENT - NUMBERS = APPROXIMATE YEARS FOR ESTABLISHMENT.

5_ / FERTILIZER NEEDS - 0=NONE; 1=10-50 POUNDS OF N, 20-40 POUNDS OF P, 20-40 POUNDS OF K; 2=50-100 POUNDS OF N, 40-60 POUNDS OF P, 40-70 POUNDS OF K; 3=100+ POUNDS OF N, 60+ POUNDS OF P, 70+ POUNDS OF K; THE FIRST CATEGORY IS WHAT IS NEEDED TO MAINTAIN A HEALTHY STAND. THE SECOND CATEGORY IS THE HIGHEST AMOUNT EXPECTED TO GIVE A FAVORABLE RESPONSE ON DRYLAND. SOIL TEST RECOMMENDATIONS SHOULD ALWAYS BE USED ON IRRIGATED PASTURES AND OTHER INTENSIVELY MANAGED PASTURES.

6_ / PH RANGE - LOW AND HIGH PH RECOMMENDED FOR THE SPECIES.

SUITABILITY GROUP A-2

(Loamy)

Description: Deep, well drained or moderately well drained soils with loamy surfaces and loamy or clayey subsoils. Soils in this subgroup occur on uplands and receive little or no extra moisture from adjoining areas. (Soils with a clayey subsoil have at least 14 inches of loamy material above the subsoil.)

Limitations: Few or no limitations. Soils in this subgroup can have slight wetness and slight salinity or alkalinity.

Soils: Dennis silt loam
Martin silty clay loam, complex
Monona silt loam
Newtonia silt loam
Tully cherty, silty clay loam; silty clay loam

Recommended Species: See chart on next page.

SPECIES	SPECIES ADAPTABILITY 1 /		SPECIES PRODUCTIVITY 2 /	GRAZING PREFERENCE 3 /	STAND ESTABLISHMENT 4 /	FERTILIZER NEEDS 5 /			PH RANGE 6 /	DROUGHT TOLERANCE
	DRYLAND	IRRIGATED				N	P	K		
WARM SEASON GRASSES										
BERMUDAGRASS	4S	7S	9	5	2-3	1-3	0-2	1-2	5.5-8.0	FAIR
HARDIE	4S	7S	9	4	2-3					FAIR
MIDLAND	4S	7S	9	5	2-3					FAIR
BIS BLUESTEM	8	8	5	7	2-3	0-1	0	0	6.0-7.5	FAIR-GOOD
KAW	8	8	6	7	2-3					FAIR-GOOD
PANTEE	8N	8N	6	7	2-3					FAIR-GOOD
EASTERN BANGRASS	4	8	10	8	2-4	0-3	0-2	0-1	5.5-7.5	FAIR
INDIANGRASS	6	8	5	7	1-3	0-1	0	0	5.5-7.5	FAIR
CHEYENNE	7	7	6	7	1-3					FAIR
NEBRASKA 54	7	7	6	7	1-3					FAIR
OSAGE	8	8	6	7	1-3					FAIR
SWITCHGRASS	7	8	5	5	1-2	0-2	0	0	5.5-8.0	GOOD
BLACKWELL	7	8	6	5	1-2					GOOD
PATHFINDER	7N	8N	6	5	1-2					GOOD
TRAILBLAZER	7N	8N	6	6	1-2					GOOD
COOL SEASON GRASSES										
ORCHARDBRASS	5	7	6	7	1-2	1-2	1-2	0-2	5.5-7.0	POOR
LATAR	5	7	7	7	1-2					POOR
REED CANARYGRASS	0	6	7	6	1-2	1-2	1-2	0-2	5.5-7.0	POOR
IDREED	0	6	8	6	1-2					POOR
RISE	0	6	8	6	1-2					POOR
SMOOTH BROMEGRASS	6	8	6	7	1	1-2	1-2	0-2	5.5-7.0	FAIR
ACHENBACH	6	8	7	7	1					FAIR
LINCOLN	5	8	7	7	1					FAIR
SOUTHLAND	6	8	7	7	1					FAIR
TALL FESCUE	6	8	6	4	1	1-2	1-2	0-2	6.2-7.0	POOR
KENNY	6	8	7	4	1					POOR
KENTUCKY 31	6	8	7	4	1					POOR
MISSOURI 96	6	8	7	4	1					POOR
WHEATGRASS										
WESTERN	7	7	4	5	1-3	0-1	0-1	0-1	6.5-8.5	GOOD
BARTON	7	7	5	5	1-3					GOOD
LEGUMES										
ALFALFA (STANDARD)	6	8	10	8		0-1	1-3	1-3	6.5-8.0	GOOD
(RHIZOMATOUS)	5	7	7	8	1-2	0-1	1-3	1-2	6.5-8.0	GOOD
CROWNVECH	5	7	8	5	1-3	0-1	0-2	1-2	6.5-8.0	FAIR
EMERALD	5	7	8	5	1-3					FAIR
SWEET CLOVER	6	7	7	7		0-1	0-2	1-2	6.5-8.0	FAIR

1 / ADAPTABILITY - 0=NOT ADAPTED, 1-3=POOR, 4-6=FAIR, 7-9=GOOD; N=NORTH OF THE SMOKY HILL AND KANSAS RIVERS; S=ADAPTED IN SOUTHERN COUNTIES ONLY.

2 / SPECIES PRODUCTIVITY - A POTENTIAL ANIMAL UNIT MONTH RATING FOR EACH CULTIVAR. THIS AUM FACTOR, FOR THE SPECIES, TIMES THE ADAPTABILITY FACTOR, DIVIDED BY 9, SHOULD GIVE A POTENTIAL AUM PRODUCTIVITY RATING OF THIS SPECIES OR CULTIVAR ON THIS GROUP.

3 / GRAZING PREFERENCE - SCALE 1 - 8, (1=POOR, 8=EXCELLENT).

4 / STAND ESTABLISHMENT - NUMBERS = APPROXIMATE YEARS FOR ESTABLISHMENT.

5 / FERTILIZER NEEDS - 0=NONE; 1=10-50 POUNDS OF N, 20-40 POUNDS OF P, 20-40 POUNDS OF K; 2=50-100 POUNDS OF N, 40-60 POUNDS OF P, 40-70 POUNDS OF K; 3=100+ POUNDS OF N, 60+ POUNDS OF P, 70+ POUNDS OF K. THE FIRST CATEGORY IS WHAT IS NEEDED TO MAINTAIN A HEALTHY STAND. THE SECOND CATEGORY IS THE HIGHEST AMOUNT EXPECTED TO GIVE A FAVORABLE RESPONSE ON DRYLAND. SOIL TEST RECOMMENDATIONS SHOULD ALWAYS BE USED ON IRRIGATED PASTURES AND OTHER INTENSIVELY MANAGED PASTURES.

6 / Ph RANGE - LOW AND HIGH Ph RECOMMENDED FOR THE SPECIES.

SUITABILITY GROUP B-1

(Skeletal)

Description: Deep, well drained soils with loamy surfaces with coarse fragments and loamy to clayey subsoils containing high amounts of coarse fragments. Soils in this subgroup occur on a wide range of slopes and topography and receive little or no extra moisture from adjoining areas.

Limitations: Soils in this group have low available water capacity because they are skeletal or fragmental.

Soils: Florence cherty, silt loam, complex
Florence silt loam, soils, complex
Matfield cherty, silt loam, complex
Olpe gravelly, silt loam, complex

Recommended Species: See chart on next page

LRA: 76
SUITABILITY GROUP:

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SPECIES	SPECIES ADAPTABILITY 1 /		SPECIES PRODUCTIVITY 2 /	GRAZING PREFERENCE 3 /	STAND ESTABLISHMENT 4 /	FERTILIZER NEEDS 5 /			PH RANGE 6 /	DROUGHT TOLERANCE
	DRYLAND	IRRIGATED				N	P	K		
WARM SEASON GRASSES										
BIG BLUESTEM	7	7	5	7	2-3	0-1	0	0	6.0-7.5	FAIR-GOOD
KAN	7	7	6	7	2-3					FAIR-GOOD
PANNEE	6N	6N	6	7	2-3					FAIR-GOOD
INDIANGRASS	7	7	5	7	1-3	0-1	0	0	5.5-7.5	FAIR
CHEYENNE	6	6	6	7	1-3					FAIR
NEBRASKA 54	6N	6N	6	7	1-3					FAIR
OSAGE	7	7	6	7	1-3					FAIR
SWITCHGRASS	6	7	5	5	1-2	0-2	0	0	5.5-8.0	GOOD
BLACKWELL	6	7	6	5	1-2					GOOD
PATHFINDER	6N	7N	6	5	1-2					GOOD
TRAILBLAZER	6N	7N	6	6	1-2					GOOD
COOL SEASON GRASSES										
SMOOTH BROMEGRASS	5	7	6	7	1	1-2	1-2	0-2	5.5-7.0	FAIR
ACHENBACH	5	7	7	7	1					FAIR
LINCOLN	4	7	7	7	1					FAIR
SOUTHLAND	5	7	7	7	1					FAIR
TALL FESCUE	5	7	6	4	1	1-2	1-2	0-2	6.2-7.0	POOR
KENNY	5	7	7	4	1					POOR
KENTUCKY 31	5	7	7	4	1					POOR
MISSOURI 96	5	7	7	4	1					POOR
WHEATGRASS										
WESTERN	5	6	4	5	1-3	0-1	0-1	0-1	6.5-8.5	GOOD
BARTON	5	6	5	5	1-3					GOOD
LEGUMES										
ALFALFA (STANDARD)	5	7	10	8		0-1	1-3	1-3	6.5-8.0	GOOD
(RHIZOMATOUS)	4	6	7	8	1-2	0-1	1-3	1-2	6.5-8.0	GOOD
CROWWETCH	4	6	8	5	1-3	0-1	0-2	1-2	6.5-8.0	FAIR
EMERALD	4	6	8	5	1-3					FAIR
SWEET CLOVER	5	6	7	7	1	0-1	0-2	1-2	6.5-8.0	FAIR

1 / ADAPTABILITY - 0=NOT ADAPTED, 1-3=POOR, 4-6=FAIR, 7-9=GOOD; N=NORTH OF THE SMOKY HILL AND KANSAS RIVERS; S=ADAPTED IN SOUTHERN COUNTIES ONLY.

2 / SPECIES PRODUCTIVITY - A POTENTIAL ANIMAL UNIT MONTH RATING FOR EACH CULTIVAR. THIS AUM FACTOR, FOR THE SPECIES, TIMES THE ADAPTABILITY FACTOR, DIVIDED BY 9, SHOULD GIVE A POTENTIAL AUM PRODUCTIVITY RATING OF THIS SPECIES OR CULTIVAR ON THIS GROUP.

3 / GRAZING PREFERENCE - SCALE 1 - 8, (1=POOR, 8=EXCELLENT).

4 / STAND ESTABLISHMENT - NUMBERS = APPROXIMATE YEARS FOR ESTABLISHMENT.

5 / FERTILIZER NEEDS - 0=NONE; 1=10-50 POUNDS OF N, 20-40 POUNDS OF P, 20-40 POUNDS OF K; 2=50-100 POUNDS OF N, 40-60 POUNDS OF P, 40-70 POUNDS OF K; 3=100+ POUNDS OF N, 60+ POUNDS OF P, 70+ POUNDS OF K. THE FIRST CATEGORY IS WHAT IS NEEDED TO MAINTAIN A HEALTHY STAND. THE SECOND CATEGORY IS THE HIGHEST AMOUNT EXPECTED TO GIVE A FAVORABLE RESPONSE ON DRYLAND. SOIL TEST RECOMMENDATIONS SHOULD ALWAYS BE USED ON IRRIGATED PASTURES AND OTHER INTENSIVELY MANAGED PASTURES.

6 / Ph RANGE - LOW AND HIGH Ph RECOMMENDED FOR THE SPECIES.

SUITABILITY GROUP C-1

(Wet Loamy)

Description: Deep, somewhat poorly or poorly drained soils with loamy surfaces and loamy to clayey subsoils. Soils in this subgroup occur on floodplains and terraces which receive extra moisture from adjoining areas.

Limitations: Seasonal wetness during a portion of the growing season.

Soils: Chase silty clay loam
Wann fine sandy loam

Recommended Species: See chart on next page.

SPECIES	SPECIES ADAPTABILITY 1 /		SPECIES PRODUCTIVITY 2 /	GRAZING PREFERENCE 3 /	STAND ESTABLISHMENT 4 /	FERTILIZER NEEDS 5 /			Ph RANGE 6 /	DROUGHT TOLERANCE
	DRYLAND	IRRIGATED				N	P	K		
WARM SEASON GRASSES										
BERMUDAGRASS	7S	-	9	5	2-3	-3	0-2	1-2	5.5-8.0	FAIR
HARDIE	7S	-	9	4	2-3					FAIR
MIDLAND	7S	-	9	5	2-3					FAIR
BIG BLUESTEM	6	-	5	7	2-3	0-1	0	0	6.0-7.5	FAIR-GOOD
KAN	6	-	6	7	2-3					FAIR-GOOD
PAWNEE	6N	-	6	7	2-3					FAIR-GOOD
EASTERN GARDAGRASS	9	-	10	8	2-4	0-3	0-2	0-1	5.5-7.5	FAIR
INDIANGRASS	6	-	5	7	1-3	0-1	0	0	5.5-7.5	FAIR
CHEYENNE	5	-	6	7	1-3					FAIR
NEBRASKA 54	6N	-	6	7	1-3					FAIR
OSAGE	6	-	6	7	1-3					FAIR
RUMSEY	4	-	6	7	1-3					FAIR
SWITCHGRASS	8	-	5	5	1-2	0-2	0	0	5.5-8.0	GOOD
BLACKWELL	8	-	6	5	1-2					GOOD
KANLOW	7	-	8	4	1-2					POOR
PATHFINDER	7N	-	6	5	1-2					GOOD
TRAILBLAZER	7N	-	6	6	1-2					GOOD
COOL SEASON GRASSES										
CREEPING FOXTAIL	7	-	6	7	1-2	1-2	1-2	0-2	5.5-7.0	POOR
GARRISON	7	-	7	7	1-2					POOR
ORCHARDGRASS	7	-	6	7	1-2	1-2	1-2	0-2	5.5-7.0	POOR
LATAR	7	-	7	7	1-2					POOR
REED CANARYGRASS	7	-	7	6	1-2	1-2	1-2	0-2	5.5-7.0	POOR
IOREED	7	-	8	6	1-2					POOR
RISE	7	-	8	6	1-2					POOR
TALL FESCUE	6	-	6	4	1	1-2	1-2	0-2	6.2-7.0	POOR
KENNY	6	-	7	4	1					POOR
KENTUCKY 31	6	-	7	4	1					POOR
MISSOURI 96	6	-	7	4						POOR
WHEATGRASS										
TALL	8		5	4	1-2	1-2	1-2	0-1	7.0-8.5	FAIR
JOSE	8		6	4	1-2					FAIR
WESTERN	8		4	5	1-3	0-1	0-1	0-1	6.5-8.5	GOOD
BARTON	8		5	5	1-3					GOOD

1 / ADAPTABILITY - 0=NOT ADAPTED, 1-3=POOR, 4-6=FAIR, 7-9=GOOD; N=NORTH OF THE SMOKY HILL AND KANSAS RIVERS; S=ADAPTED IN SOUTHERN COUNTIES ONLY.

2 / SPECIES PRODUCTIVITY - A POTENTIAL ANIMAL UNIT MONTH RATING FOR EACH CULTIVAR. THIS AUM FACTOR, FOR THE SPECIES, TIMES THE ADAPTABILITY FACTOR, DIVIDED BY 9, SHOULD GIVE A POTENTIAL AUM PRODUCTIVITY RATING OF THIS SPECIES OR CULTIVAR ON THIS GROUP.

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4 / STAND ESTABLISHMENT - NUMBERS = APPROXIMATE YEARS FOR ESTABLISHMENT.

5 / FERTILIZER NEEDS - 0=NONE; 1=10-50 POUNDS OF N, 20-40 POUNDS OF P, 20-40 POUNDS OF K; 2=50-100 POUNDS OF N, 40-60 POUNDS OF P, 40-70 POUNDS OF K; 3=100+ POUNDS OF N, 60+ POUNDS OF P, 70+ POUNDS OF K. THE FIRST CATEGORY IS WHAT IS NEEDED TO MAINTAIN A HEALTHY STAND. THE SECOND CATEGORY IS THE HIGHEST AMOUNT EXPECTED TO GIVE A FAVORABLE RESPONSE ON DRYLAND. SOIL TEST RECOMMENDATIONS SHOULD ALWAYS BE USED ON IRRIGATED PASTURES AND OTHER INTENSIVELY MANAGED PASTURES.

6 / Ph RANGE - LOW AND HIGH Ph RECOMMENDED FOR THE SPECIES.

SUITABILITY GROUP C-2

(Wet Clayey

Description: Deep, very poorly drained soil with clayey surfaces and subsoils. Soils in this subgroup occur on floodplains and terraces which receive extra moisture from adjoining areas. The subsoil is very slowly permeable.

Limitations: These soils have a seasonal high water table during the winter and spring but are droughty during the summer.

Soils: Osage silty clay
Solomon silty clay
Wabash silty clay loam

Recommended Species: See chart on next page.

SPECIES	SPECIES ADAPTABILITY 1 /		SPECIES PRODUCTIVITY 2 /	GRAZING PREFERENCE 3 /	STAND ESTABLISHMENT 4 /	FERTILIZER NEEDS 5 /			PH RANGE 6 /	DROUGHT TOLERANCE
	DRYLAND	IRRIGATED				N	P	K		
WARM SEASON GRASSES										
BERMUDAGRASS	6S	-	9	5	2-3	1-3	0-2	1-2	5.5-8.0	FAIR
HARDIE	6S	-	9	4	2-3					FAIR
MIDLAND	6S	-	9	5	2-3					FAIR
BIG BLUESTEM	4	-	5	7	2-3	0-1	0	0	6.0-7.5	FAIR-GOOD
KAW	4	-	6	7	2-3					FAIR-GOOD
SWITCHGRASS	7	-	5	5	1-2	0-2	0	0	5.5-8.0	GOOD
BLACKWELL	7	-	6	5	1-2					GOOD
KANLOW	6	-	6	4	1-2					POOR
PATFINDER	7N	-	6	5	1-2					GOOD
TRAILBLAZER	7N	-	6	6	1-2					GOOD
COOL SEASON GRASSES										
CREeping FOXTAIL	6		6	7	1-2	1-2	1-2	0-2	5.5-7.0	POOR
GARRISON	6		7	7	1-2					POOR
ORCHARDGRASS	6		6	7	1-2	1-2	1-2	0-2	5.5-7.0	POOR
LATAR	6		7	7	1-2					POOR
REED CANARYGRASS	6		7	6	1-2	1-2	1-2	0-2	5.5-7.0	POOR
LOREED	6		8	6	1-2					POOR
RISE	6		8	6	1-2					POOR
TALL FESCUE	6		6	4	1	1-2	1-2	0-2	6.2-7.0	POOR
KENNY	6		7	4						POOR
KENTUCKY 31	6		7	4						POOR
MISSOURI 96	6		7	4						POOR
WHEATGRASS										
TALL	8		5	4	1-2	1-2	1-2	0-1	7.0-8.5	FAIR
JOSE	8		6	4	1-2					FAIR
WESTERN	8		4	5	1-3	0-1	0-1	0-1	6.5-8.5	GOOD
BARTON	8		5	5	1-3					GOOD

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2 / SPECIES PRODUCTIVITY - A POTENTIAL ANIMAL UNIT MONTH RATING FOR EACH CULTIVAR. THIS AUM FACTOR, FOR THE SPECIES, TIMES THE ADAPTABILITY FACTOR, DIVIDED BY 9, SHOULD GIVE A POTENTIAL AUM PRODUCTIVITY RATING OF THIS SPECIES OR CULTIVAR ON THIS GROUP.

3 / GRAZING PREFERENCE - SCALE 1 - 8, (1=POOR, 8=EXCELLENT).

4 / STAND ESTABLISHMENT - NUMBERS = APPROXIMATE YEARS FOR ESTABLISHMENT.

5 / FERTILIZER NEEDS - 0=NONE; 1=10-50 POUNDS OF N, 20-40 POUNDS OF P, 20-40 POUNDS OF K; 2=50-100 POUNDS OF N, 40-60 POUNDS OF P, 40-70 POUNDS OF K; 3=100+ POUNDS OF N, 60+ POUNDS OF P, 70+ POUNDS OF K. THE FIRST CATEGORY IS WHAT IS NEEDED TO MAINTAIN A HEALTHY STAND. THE SECOND CATEGORY IS THE HIGHEST AMOUNT EXPECTED TO GIVE A FAVORABLE RESPONSE ON DRYLAND. SOIL TEST RECOMMENDATIONS SHOULD ALWAYS BE USED ON IRRIGATED PASTURES AND OTHER INTENSIVELY MANAGED PASTURES.

6 / PH RANGE - LOW AND HIGH PH RECOMMENDED FOR THE SPECIES.

SUITABILITY GROUP F-1
(Loamy-Moderately Deep)

Description: Moderately deep, well drained or moderately well drained soils with loamy surfaces and subsoils. Soils in this subgroup occur on uplands and are underlain by bedrock at depths of 20 to 40 inches.

Limitations: Restricted root depth due to bedrock.

Soils: Benfield cherty, silt loam
Fiat silty clay loam
Labette silty clay loam, cherty silty clay loam, complex
Longford silty clay loam; silty clay loam, eroded
(Bedrock substratum)

Recommended Species: See chart on next page.

SPECIES	SPECIES ADAPTABILITY 1 /		SPECIES PRODUCTIVITY 2 /	GRAZING PREFERENCE 3 /	STAND ESTABLISHMENT 4 /	FERTILIZER NEEDS 5 /			PH RANGE 6 /	DROUGHT TOLERANCE
	DRYLAND	IRRIGATED				N	P	K		
WARM SEASON GRASSES										
BIG BLUESTEM	7	7	5	7	2-3	0-1	0	0	6.0-7.5	FAIR-GOOD
KAN	7	7	6	7	2-3					FAIR-GOOD
PANTEE	6N	6N	6	7	2-3					FAIR-GOOD
INDIANGRASS	7	7	5	7	1-3	0-1	0	0	5.5-7.5	FAIR
CHEYENNE	6	6	6	7	1-3					FAIR
NEBRASKA 54	6	6	6	7	1-3					FAIR
OSAGE	7	7	6	7	1-3					FAIR
SWITCHGRASS	6	7	5	5	1-2	0-2	0	0	5.5-8.0	GOOD
BLACKWELL	6	7	6	5	1-2					GOOD
PAT-FINDER	6N	7N	6	5	1-2					GOOD
TRAILBLAZER	6N	7N	6	6	1-2					GOOD
COOL SEASON GRASSES										
SMOOTH BROMEGRASS	5	7	6	7	1	1-2	1-2	0-2	5.5-7.0	FAIR
ACHENBACH	5	7	7	7	1					FAIR
LINCOLN	4	7	7	7	1					FAIR
SOUTHLAND	5	7	7	7						FAIR
TALL FESCUE	5	7	6	4		1-2	1-2	0-2	6.2-7.0	POOR
KENNY	4	6	7	4	1					POOR
KENTUCKY 31	5	7	7	4	1					POOR
MISSOURI 96	5	7	7	4	1					POOR
WHEATGRASS										
WESTERN	6	6	4	5	1-3	0-1	0-1	0-1	6.5-8.5	GOOD
BARTON	6	6	5	5	1-3					GOOD
LEGUMES										
ALFALFA (STANDARD)	5	7	10	8		0-1	1-3	1-3	6.5-8.0	GOOD
(RHIZOMATOUS)	4	6	7	8	1-2	0-1	1-3	1-2	6.5-8.0	GOOD
CROWNWEED	4	6	8	5	1-3	0-1	0-2	1-2	6.5-8.0	FAIR
EMERALD	4	6	6	5	1-3					FAIR
SWEET CLOVER	5	6	7	7	1	0-1	0-2	1-2	6.5-8.0	FAIR

1 / ADAPTABILITY - 0=NOT ADAPTED, 1-3=POOR, 4-6=FAIR, 7-9=GOOD; N=NORTH OF THE SMOKY HILL AND KANSAS RIVERS; S=ADAPTED IN SOUTHERN COUNTIES ONLY.

2 / SPECIES PRODUCTIVITY - A POTENTIAL ANIMAL UNIT MONTH RATING FOR EACH CULTIVAR. THIS AUM FACTOR, FOR THE SPECIES, TIMES THE ADAPTABILITY FACTOR, DIVIDED BY 9, SHOULD GIVE A POTENTIAL AUM PRODUCTIVITY RATING OF THIS SPECIES OR CULTIVAR ON THIS GROUP.

3 / GRAZING PREFERENCE - SCALE 1 - 8, (1=POOR, 8=EXCELLENT).

4 / STAND ESTABLISHMENT - NUMBERS = APPROXIMATE YEARS FOR ESTABLISHMENT.

5 / FERTILIZER NEEDS - 0=NONE; 1=10-50 POUNDS OF N, 20-40 POUNDS OF P, 20-40 POUNDS OF K; 2=50-100 POUNDS OF N, 40-60 POUNDS OF P, 40-70 POUNDS OF K; 3=100+ POUNDS OF N, 60+ POUNDS OF P, 70+ POUNDS OF K. THE FIRST CATEGORY IS WHAT IS NEEDED TO MAINTAIN A HEALTHY STAND. THE SECOND CATEGORY IS THE HIGHEST AMOUNT EXPECTED TO GIVE A FAVORABLE RESPONSE ON DRYLAND. SOIL TEST RECOMMENDATIONS SHOULD ALWAYS BE USED ON IRRIGATED PASTURES AND OTHER INTENSIVELY MANAGED PASTURES.

6 / PH RANGE - LOW AND HIGH PH RECOMMENDED FOR THE SPECIES.

SUITABILITY GROUP F-2

(Limy-Moderately Deep)

- Description:** Moderately deep, well drained or moderately well drained soils with loamy surfaces and loamy to clayey subsoils. Soils in this subgroup occur on uplands and have calcareous surface and subsurface layers and are underlain with calcareous bedrock at depths of 20 to 40 inches.
- Limitations:** Soils in this subgroup are slightly affected by limy surfaces and subsoils and have a restricted root depth.
- Soils:** Clime silty clay, silty clay loam

Recommended Species: See chart on next page

SPECIES	SPECIES ADAPTABILITY 1 /		SPECIES PRODUCTIVITY 2 /	GRAZING PREFERENCE 3 /	STAND ESTABLISHMENT 4 /	FERTILIZER NEEDS 5 /			PH RANGE 6 /	DROUGHT TOLERANCE
	DRYLAND	IRRIGATED				N	P	K		
WARM SEASON GRASSES										
BIG BLUESTEM	7	0	5	7	2-3	0-1	0	0	6.0-7.5	FAIR-GOOD
KAN	7	0	6	7	2-3					FAIR-GOOD
PAWNEE	6	0	6	7	2-3					FAIR-GOOD
INDIANGRASS	7	0	5	7	1-3	0-1	0	0	5.5-7.5	FAIR
CHEYENNE	6	0	6	7	1-3					FAIR
NEBRASKA 54	6N	0	6	7	1-3					FAIR
OSAGE	7	0	6	7	1-3					FAIR
SWITCHGRASS	6	0	5	5	1-2	0-2	0	0	5.5-8.0	GOOD
BLACKWELL	6	0	6	5	1-2					GOOD
PATHFINDER	6N	0	6	5	1-2					GOOD
TRAILBLAZER	6N	0	6	6	1-2					GOOD
COOL SEASON GRASSES										
SMOOTH BROMEGRASS	5	0	6	7		1-2	1-2	0-2	5.5-7.0	FAIR
ACHENBACH	5	0	7	7						FAIR
LINCOLN	4	0	7	7						FAIR
SOUTHLAND	5	0	7	7						FAIR
WHEATGRASS										
WESTERN	6	0	4	5	1-3	0-1	0-1	0-1	6.5-8.5	GOOD
BARTON	6	0	5	5	1-3					GOOD
LEGUMES										
ALFALFA (STANDARD)	5	0	10	8	1	0-1	1-3	1-3	6.5-8.0	GOOD
(RHIZOMATOUS)	4	0	7	8	1-2	0-1	1-3	1-2	6.5-8.0	GOOD
CROWNVEITCH	4	0	8	5	1-3	0-1	0-2	1-2	6.5-8.0	FAIR
EMERALD	4	0	8	5	1-3					FAIR
SWEET CLOVER	5	0	7	7	1	0-1	0-2	1-2	6.5-8.0	FAIR

1 / ADAPTABILITY - 0=NOT ADAPTED, 1-3=POOR, 4-6=FAIR, 7-9=GOOD; N=NORTH OF THE SMOKY HILL AND KANSAS RIVERS; S=ADAPTED IN SOUTHERN COUNTIES ONLY.

2 / SPECIES PRODUCTIVITY - A POTENTIAL ANIMAL UNIT MONTH RATING FOR EACH CULTIVAR. THIS AUM FACTOR, FOR THE SPECIES, TIMES THE ADAPTABILITY FACTOR, DIVIDED BY 9, SHOULD GIVE A POTENTIAL AUM PRODUCTIVITY RATINGS OF THIS SPECIES OR CULTIVAR ON THIS GROUP.

3 / GRAZING PREFERENCE - SCALE 1 - 8, (1=POOR, 8=EXCELLENT).

4 / STAND ESTABLISHMENT - NUMBERS = APPROXIMATE YEARS FOR ESTABLISHMENT.

5 / FERTILIZER NEEDS - 0=NONE; 1=10-50 POUNDS OF N, 20-40 POUNDS OF P, 20-40 POUNDS OF K; 2=50-100 POUNDS OF N, 40-60 POUNDS OF P, 40-70 POUNDS OF K; 3=100+ POUNDS OF N, 60+ POUNDS OF P, 70+ POUNDS OF K. THE FIRST CATEGORY IS WHAT IS NEEDED TO MAINTAIN A HEALTHY STAND. THE SECOND CATEGORY IS THE HIGHEST AMOUNT EXPECTED TO GIVE A FAVORABLE RESPONSE ON DRYLAND. SOIL TEST RECOMMENDATIONS SHOULD ALWAYS BE USED ON IRRIGATED PASTURES AND OTHER INTENSIVELY MANAGED PASTURES.

6 / PH RANGE - LOW AND HIGH PH RECOMMENDED FOR THE SPECIES.

SUITABILITY GROUP F-3

(Eroded Clay)

- Description: Deep, well drained to somewhat poorly drained, eroded soils with clayey or thin loamy surfaces and clayey subsoils.
- Limitations: Stand establishment on these soils is very difficult due to clayey or thin surfaces. Low organic matter will limit fertility and plant production (causing difficult management decisions).
- Soils: Dennis silty clay loam, eroded
Irwin silty clay loam, eroded
Ladysmith silty clay loam, eroded
Martin silty clay loam, eroded
Mayberry clay loam, eroded
Tully silty clay loam, eroded

Recommended Species: See chart on next page.

SPECIES	SPECIES ADAPTABILITY 1 /		SPECIES PRODUCTIVITY 2 /	GRAZING PREFERENCE 3 /	STAND ESTABLISHMENT 4 /	FERTILIZER NEEDS 5 /			pH RANGE 6 /	DROUGHT TOLERANCE
	DRYLAND	IRRIGATED				N	P	K		
WARM SEASON GRASSES										
BIG BLUESTEM	6	6	5	7	2-3	0-1	0	0	6.0-7.5	FAIR-GOOD
KAN	6	6	5	7	2-3					FAIR-GOOD
PAWNEE	5N	5N	6	7	2-3					FAIR-GOOD
INDIANGRASS	6	6	5	7	1-3	0-1	0	0	5.5-7.5	FAIR
CHEYENNE	5	5	6	7	1-3					FAIR
NEBRASKA 24	5N	5N	6	7	1-3					FAIR
OSAGE	6	6	6	7	1-3					FAIR
SIDEWATER GRAMA	6	7	3	5	1-3	0-1	0		6.0-7.5	GOOD
EL RENO	6	7	4	5	1-3					GOOD
TRAILWAY	6N	7N	4	5	1-3					GOOD
SWITCHGRASS	6	7	5	5	1-2	0-2	0	0	5.5-8.0	GOOD
BLACKWELL	6	7	6	5	1-2					GOOD
PAT-FINDER	6N	7N	6	5	1-2					GOOD
TRAILBLAZER	6N	7N	6	6	1-2					GOOD
COOL SEASON GRASSES										
TALL FESCUE	4	7	6	4	1	-2	1-2	0-2	6.2-7.0	POOR
KENNY	3	6	7	4						POOR
KENTUCKY 31	4	7	7	4	1					POOR
MISSOURI 96	4	7	7	4	1					POOR
WHEATGRASS										
WESTERN	5	6	4	5	1-3	0-1	0-1	0-1	6.5-8.5	GOOD
BARTON	5	6	5	5	1-3					GOOD

1 / ADAPTABILITY - 0=NOT ADAPTED, 1-3=POOR, 4-6=FAIR, 7-9=GOOD; N=NORTH OF THE SMOKY HILL AND KANSAS RIVERS; S=ADAPTED IN SOUTHERN COUNTIES ONLY.

2 / SPECIES PRODUCTIVITY - A POTENTIAL ANIMAL UNIT MONTH RATING FOR EACH CULTIVAR. THIS AUM FACTOR, FOR THE SPECIES, TIMES THE ADAPTABILITY FACTOR, DIVIDED BY 9, SHOULD GIVE A POTENTIAL AUM PRODUCTIVITY RATING OF THIS SPECIES OR CULTIVAR ON THIS GROUP.

3 / GRAZING PREFERENCE - SCALE 1 - 8, (1=POOR, 8=EXCELLENT).

4 / STAND ESTABLISHMENT - NUMBERS = APPROXIMATE YEARS FOR ESTABLISHMENT.

5 / FERTILIZER NEEDS - 0=NONE; 1=10-50 POUNDS OF N, 20-40 POUNDS OF P, 20-40 POUNDS OF K; 2=50-100 POUNDS OF N, 40-60 POUNDS OF P, 40-70 POUNDS OF K; 3=100+ POUNDS OF N, 60+ POUNDS OF P, 70+ POUNDS OF K. THE FIRST CATEGORY IS WHAT IS NEEDED TO MAINTAIN A HEALTHY STAND. THE SECOND CATEGORY IS THE HIGHEST AMOUNT EXPECTED TO GIVE A FAVORABLE RESPONSE ON DRYLAND. SOIL TEST RECOMMENDATIONS SHOULD ALWAYS BE USED ON IRRIGATED PASTURES AND OTHER INTENSIVELY MANAGED PASTURES.

6 / pH RANGE - LOW AND HIGH pH RECOMMENDED FOR THE SPECIES.

SUITABILITY GROUP F-4

(Clayey)

Description: Deep and moderately deep, well drained to somewhat poorly drained soils with loamy or clayey surfaces and clayey subsoils. (If surface texture is loamy, it is less than 14 inches over dense clayey subsoil.)

Limitations: Slowly or very slowly permeable clayey subsoils.

Soils: Eram silt loam, silty clay loam
Ladysmith silty clay loam
Mayberry clay loam
Pawnee clay loam, complex
Zaar silty clay

Recommended Species: See chart on next page.

SPECIES	SPECIES ADAPTABILITY 1 /		SPECIES PRODUCTIVITY 2 /	GRAZING PREFERENCE 3 /	STAND ESTABLISHMENT 4 /	FERTILIZER NEEDS 5 /			PH RANGE 6 /	DROUGHT TOLERANCE
	DRYLAND	IRRIGATED				N	P	K		
WARM SEASON GRASSES										
BIG BLUESTEM	7	7	5	7	2-3	0-1	0	0	6.0-7.5	FAIR-GOOD
KAN	7	7	6	7	2-3					FAIR-GOOD
PANNEE	6N	6N	6	7	2-3					FAIR-GOOD
INDIANGRASS	7	7	5	7	1-3	0-1	0	0	5.5-7.5	FAIR
CHEYENNE	6	6	6	7	1-3					FAIR
NEBRASKA 54	6N	6N	6	7	1-3					FAIR
OSAGE	7	7	6	7	1-3					FAIR
SWITCHGRASS	6	7	5	5	1-2	0-2	0	0	5.5-8.0	GOOD
BLACKWELL	6	7	6	5	1-2					GOOD
PATHFINDER	6N	7N	6	5	1-2					GOOD
TRAILBLAZER	6N	7N	6	6	1-2					GOOD
COOL SEASON GRASSES										
SMOOTH BROMEGRASS	5	7	6	7	1	1-2	-2	0-2	5.5-7.0	FAIR
ACHENBACH	5	7	7	7	1					FAIR
LINCOLN	4	7	7	7	1					FAIR
SOUTHLAND	5	7	7	7						FAIR
TALL FESCUE	5	7	6	4		-2	-2	0-2	6.2-7.0	POOR
KENNY	5	7	7	4						POOR
KENTUCKY 31	5	7	7	4						POOR
MISSOURI 96	5	7	7	4						POOR
WHEATGRASS										
WESTERN	6	6	4	5	1-3	0-1	0-1	0-1	6.5-8.5	GOOD
BARTON	6	6	5	5	1-3					GOOD

1 / ADAPTABILITY - 0=NOT ADAPTED, 1-3=POOR, 4-6=FAIR, 7-9=GOOD; N=NORTH OF THE SMOKY HILL AND KANSAS RIVERS; S=ADAPTED IN SOUTHERN COUNTIES ONLY.

2 / SPECIES PRODUCTIVITY - A POTENTIAL ANIMAL UNIT MONTH RATING FOR EACH CULTIVAR. THIS AUM FACTOR, FOR THE SPECIES, TIMES THE ADAPTABILITY FACTOR, DIVIDED BY 9, SHOULD GIVE A POTENTIAL AUM PRODUCTIVITY RATING OF THIS SPECIES OR CULTIVAR ON THIS GROUP.

3 / GRAZING PREFERENCE - SCALE 1 - 8, (1=POOR, 8=EXCELLENT).

4 / STAND ESTABLISHMENT - NUMBERS = APPROXIMATE YEARS FOR ESTABLISHMENT.

5 / FERTILIZER NEEDS - 0=NONE; 1=10-50 POUNDS OF N, 20-40 POUNDS OF P, 20-40 POUNDS OF K; 2=50-100 POUNDS OF N, 40-60 POUNDS OF P, 40-70 POUNDS OF K; 3=100+ POUNDS OF N, 60+ POUNDS OF P, 70+ POUNDS OF K. THE FIRST CATEGORY IS WHAT IS NEEDED TO MAINTAIN A HEALTHY STAND. THE SECOND CATEGORY IS THE HIGHEST AMOUNT EXPECTED TO GIVE A FAVORABLE RESPONSE ON DRYLAND. SOIL TEST RECOMMENDATIONS SHOULD ALWAYS BE USED ON IRRIGATED PASTURES AND OTHER INTENSIVELY MANAGED PASTURES.

6 / PH RANGE - LOW AND HIGH PH RECOMMENDED FOR THE SPECIES.

SUITABILITY GROUP G-2

(Sodic)

Description: Deep, moderately well drained soils with silty surfaces and dense clay subsoils. These soils contain accumulations of alkali or sodium salts.

Limitations: Excessive alkalinity or sodium salts.

Soils: Dwight silt loam, complex; silt loam, eroded

Recommended Species: See chart on next page.

SPECIES	SPECIES ADAPTABILITY 1 /		SPECIES PRODUCTIVITY 2 /	GRAZING PREFERENCE 3 /	STAND ESTABLISHMENT 4 /	FERTILIZER NEEDS 5 /			PH RANGE 6 /	DROUGHT TOLERANCE
	DRYLAND	IRRIGATED				N	P	K		
WARM SEASON GRASSES										
BIG BLUESTEM	6	0	5	7	2-3	0-1	0	0	6.0-7.5	FAIR-GOOD
KAN	6	0	6	7	2-3					FAIR-GOOD
INDIANGRASS	6	0	5	7	1-3	0-1	0	0	5.5-7.5	FAIR
ORAGE	6	0	6	7	1-3					FAIR
SIDEWATER GRASS	6	0	3	5	1-3	0-1	0	0	6.0-7.5	GOOD
EL RENO	6	0	4	5	1-3					GOOD
TRAILWAY	6	0	4	5	1-3					GOOD
SWITCHGRASS	6	0	5	5	1-2	0-2	0		5.5-8.0	GOOD
BLACKWELL	6	0	6	5	1-2					GOOD
COOL SEASON GRASSES										
SMOOTH BROMEGRASS	4	0	6	7	1	1-2	1-2	0-2	5.5-7.0	FAIR
ADENBACH	4	0	7	7	1					FAIR
LINCOLN	4	0	7	7	1					FAIR
SOUTHLAND	4	0	7	7	1					FAIR
TALL FESCUE	5	0	6	4		1-2	1-2	0-2	6.2-7.0	POOR
KENTUCKY 31	5	0	7	4						POOR
WHEATGRASS										
WESTERN	5	0	4	5	1-3	0-1	0-1	0-1	6.5-8.5	GOOD
BARTON	5	0	5	5	1-3					GOOD

1 / ADAPTABILITY - 0=NOT ADAPTED. 1-3=POOR. 4-6=FAIR. 7-9=GOOD; N=NORTH OF THE SMOKY HILL AND KANSAS RIVERS; S=ADAPTED IN SOUTHERN COUNTIES ONLY.

2 / SPECIES PRODUCTIVITY - A POTENTIAL ANIMAL UNIT MONTH RATING FOR EACH CULTIVAR. THIS AUM FACTOR, FOR THE SPECIES, TIMES THE ADAPTABILITY FACTOR, DIVIDED BY 9, SHOULD GIVE A POTENTIAL AUM PRODUCTIVITY RATING OF THIS SPECIES OR CULTIVAR ON THIS GROUP.

3 / GRAZING PREFERENCE - SCALE 1 - 8. (1=POOR, 8=EXCELLENT).

4 / STAND ESTABLISHMENT - NUMBERS = APPROXIMATE YEARS FOR ESTABLISHMENT.

5 / FERTILIZER NEEDS - 0=NONE; 1=10-50 POUNDS OF N, 20-40 POUNDS OF P, 20-40 POUNDS OF K; 2=50-100 POUNDS OF N, 40-60 POUNDS OF P, 40-70 POUNDS OF K; 3=100+ POUNDS OF N, 60+ POUNDS OF P, 70+ POUNDS OF K. THE FIRST CATEGORY IS WHAT IS NEEDED TO MAINTAIN A HEALTHY STAND. THE SECOND CATEGORY IS THE HIGHEST AMOUNT EXPECTED TO GIVE A FAVORABLE RESPONSE ON DRYLAND. SOIL TEST RECOMMENDATIONS SHOULD ALWAYS BE USED ON IRRIGATED PASTURES AND OTHER INTENSIVELY MANAGED PASTURES.

6 / PH RANGE - LOW AND HIGH PH RECOMMENDED FOR THE SPECIES.

SUITABILITY GROUP H

(Not Suitable)

- Description:** This group includes various textures and phases of soils and land types which occur on a wide range of slopes and topography.
- Limitations:** Soils in this group are generally too shallow, erosive, gravelly, stony, or rocky; too steep, droughty, wet, clayey or saline and alkaline for good survival or growth of pasture species.
- Soils:** Aquents, flooded
Clime, stony, rock outcrop
Kipson silty clay loam, complex
Paxico silt loam
Sogn silty clay loam, complex
Sogn steep land
Tuttle silty clay loam, stony

Recommended Species: See Standards and Specifications for Critical Area Planting (342).